

# *Onosma apiculatum* (Boraginaceae), a New Species from China

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**ABSTRACT.** *Onosma apiculatum* from Xinjiang, China, is described. Its relationship to the three species of series *Tianschanica* is discussed, and its distinguishing characters from these are given.

***Onosma apiculatum*** H. Riedl, sp. nov. TYPE: China. Xinjiang: Zhao Moa Hong Qi, 2nd wood-cutting grounds, 2100 m, 9 June 1965, *Cheo Tai-yien et al.* 650713 (holotype, SZ; isotype, SZ; photos, W).

Herba perennis, foliis rosulae linearibus vel lineari-subspathulatis, basin versus petiolatim attenuatis, 4–13 cm longis, 4–8 mm latis; foliis caulinis inferioribus basalibus similibus basin versus paulo tantum attenuatis, superioribus prope basin latissimis manifeste brevioribus, omnibus viridibus, supra setis patentibus densis tuberculis albis vix elevatis e circulis 2 vel 3 cellularum compositis insidentibus et papillis nonnullis minutis, infra setis imprimis in nervo mediano densis, ceterum laxis pilisque brevibus numerosis densissimis vestitis, cymis singulis vel geminatis, calyce ca. 1.5 cm longo, laciniis linearibus, subobtusis, usque ad basin liberis, corolla 2–2.2 cm longa, compressa 8 mm fere lata, extra minutissime papillosa, intus glabra, antheris tota longitudine cohaerentibus apice sterili vix 1 mm longe exsertis; filamentis antheris paulo brevioribus, in parte tertia inferiore corollae insertis, stylo corollam 2.5–3 mm superante stigmatem bilobo insignis.

Herbs perennial, with a single flowering stem and sterile rosette of leaves arising from either a stout vertical rhizome or from its  $\pm$  horizontal branches. Stem lateral, ascending, 20–35 cm high, unbranched, straw-colored when dry, densely covered by a mixture of white patent bristles ca. 2 mm long and very short patent hairs. Leaves of the sterile rosette 4–13 cm long, 4–8 mm wide, linear-spatulate to linear-oblongate, tapering into a petiole-like base, revolute at margin, acute to subobtusate at apex, green, densely covered adaxially with patent to subappressed white bristles arising from a white, nearly flat tubercle composed of 2 or 3 circles of roundish to radially elongated, strongly convex cells and numerous minute papillae, abaxially covered with similar bristles mainly along the midrib and only sparsely on other parts, with dense short hairs as those on stem; lower stem leaves similar to rosette leaves in size and shape but only a little narrowed toward base; uppermost leaves much shorter, 2.5–4 cm long, widest near base, acute, bristles and hairs as in rosette leaves. Cymes single or paired, involute, 4–6 cm long in flower; lower bracts similar to upper

stem leaves, to 2 cm long, broad at base, decreasing in size upward. Lower pedicels to 5 mm long, upper ones to 2 mm. Calyx ca. 1.5 cm long in flower, divided to base into 5 linear, subobtusate lobes densely covered with fairly soft, appressed or subappressed bristles and short hairs, elongated soon after flowering. Corolla pale yellow, turning brown after flowering and when dry at least in apical part, club-shaped, 2–2.2 cm long, ca. 8 mm wide just below lobes, ca. 3 mm wide at base in the compressed state, very minutely papillate outside, glabrous inside and on nectary; lobes ca. 1.5 mm long, recurved, ca. 4.5 mm wide at base, abruptly tapering into an obtuse apex ca. 1.5 mm wide. Anthers coherent for their entire length, ca. 9.5 mm long, fertile part ca. 3.5 mm; sterile tips horizontally truncate at apex, exerted from corolla for less than 1 mm; filaments ca. 7 mm long, ca. 0.8 mm wide, tapering toward anther. Style surpassing corolla by 2.5–3 mm; stigma 2-lobed. Nutlets not seen.

*Onosma apiculatum* belongs to series *Tianschanica* Popov, the three other species of which are *O. gmelinii* Ledebour, *O. irritans* Popov ex Pavlov, and *O. baldshuanicum* Lipsky. From *O. gmelinii*, the new species is distinguished by its green instead of grayish leaves, bracts longer than calyx, club-shaped corolla, and slightly longer anthers; from *O. irritans* by its markedly wider leaves without a distinct petiole, presence of short hairs between the bristles, bracts longer than calyx, shorter calyx, and club-shaped corolla; and from *O. baldshuanicum* by its narrower leaves without a distinct petiole, much denser cover of bristles and short hairs, bracts longer than calyx, and shorter anthers. *Onosma apiculatum* also differs from these three species by its shorter corolla and by the shape of its corolla lobes, which are very broad at base and suddenly contracted into a narrow tip, hence the specific epithet *apiculatum*. The type collection was misidentified as *O. echioides* L., but this species is native to Europe and adjacent parts of Turkey and differs by several characters, the most notable of which are the shorter calyx scarcely half as long as corolla and the asterotrichous indumentum.

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